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09/556,852	04/21/2000	Charles A. Lieder	013129-00025	6369
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/556,852  
Filing Date: April 21, 2000  
Appellant(s): LIEDER ET AL.

**MAILED  
JUL 25 2007  
GROUP 1700**

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Steven S. Boyd  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 22, 2007 appealing from the Office action mailed May 17, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

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**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 17, 18, 26, 30, 34, 38 and their dependents are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support in the specification for the limitation for an alcohol content "less than or equal to 10 volume percent" (claims 1, 17 and 26). There is no support in the specification for "the benzene content of the blend is greater than 0.27 volume percent" (claim 18); "the aromatic content of the blend is greater than 16.76 volume percent" (claim 30); " the olefin content of the blend is greater than 1.15 volume percent" (claim 34) and "a Dry Vapor Pressure Equivalent greater than or equal to 5.3 PSI" (claim 38).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-10, 13-18 and 21-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Jarvis (US 5,679,117).

Jarvis teaches a process of producing high-octane hydrocarbons wherein a mixture of ethanol and butane, natural gasoline or low octane gasoline is taken through a series of process steps (see abstract). Jarvis teaches that the final liquid product possesses a RON of 120-160, MON of 110-129 and R+M/2 of 148. The final product contains 42.75% ethanol and <0.1% MTBE (see col. 5, lines 3-17). To produce the final high octane gasoline Jarvis adds 20% of the final liquid product to 80 octane gasoline and the resulting mixture is 92.8 octane with a vapor pressure in the range of 4 to 19 psi (see col. 5, lines 25-28). When Jarvis takes the mixture of 1/3 ethanol and 2/3 natural gasoline through his process, the resulting product is substantially one half natural gasoline and one half ethanol, wherein the vapor pressure of the product is 1.5-8 psi and the octane rating is 108 to 160. Jarvis discusses other examples wherein his final product contains ethanol and has a vapor pressure of 6 to 8 psi (see col. 6, lines 1-28).

While Jarvis does not specifically discuss that his final composition reduces toxic air pollutants emissions, he would inherently meet this limitations because he teaches the same fuel composition as Applicant.

Accordingly, Jarvis teaching all the limitations of the claims, anticipates the claims.

#### **(10) Response to Argument**

Appellant's arguments have been fully considered but they are not persuasive.

Appellant argues that the language "less than or equal to 10 volume percent" is supported by the data presented in Tables 8 and 13, which are reprinted in the brief, and which show blends wherein the alcohol content is greater than about 5.0 volume percent but less than or equal to 10 volume percent.

The examiner respectfully disagrees. Table 8 provides for 5.42 and 9.5-.81 volume percent alcohol. There are no proportions listed that are greater than 9.81. Table 13 provides for up to 9.91 %. There is no disclosed amount of 10 volume percent. Therefore, Applicant does not have support for 9.92-10%.

Applicant argues that the support for the limitation "benzene content of the blend is greater than 0.27 volume percent" may be found in Table 10, which is reprinted in the brief, which sets forth Blend X containing 0.27 volume percent benzene.

The language "greater than 0.27 volume percent" is open to an unlimited amount of benzene. The present specification does not support unlimited benzene.

Appellant argues that the limitation "the aromatic content of the blend is greater than 16.76 volume percent" is supported by Table 10, which is reprinted in the brief, which sets forth Blend H containing an aromatic content of 16.76 volume percent.

Appellant argues that Table 10, Blend Q1, supports the limitation of an "olefin content of

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the blend is greater than 1.15 volume percent.” Appellant argues that Table 12, Blends BB and CC, supports the limitation “a Dry Vapor Pressure Equivalent greater than or equal to 5.3 psi.”

The examples that Appellant relies upon for support of the above limitations are not sufficient to support the presence of unlimited amounts of the aromatics and olefins and a vapor pressure that may be greater than 5.3 psi. The values that Appellant relies upon for these components and property are just one value point and do not provide support for unlimited and undisclosed aromatics, olefins and vapor pressure.

Appellant argues that Jarvis does not disclose the alcohol content of the final product. Appellant argues that Jarvis fails to disclose a blend of gasoline and oxygenate because Jarvis discloses a reaction product. Appellant argues that the Declaration of Dr. Lieder establishes that Jarvis is directed to a chemical reaction and not a blend. Appellant argues that the examiner failed to address the issue that Jarvis uses a platinum catalyst and characterizes his product as a catalyzed mixture. Appellant further argues that there is a disparity in the reported physical properties of Jarvis's product and the theoretical properties of the products.

The examiner respectfully disagrees with Appellant's arguments. Jarvis teaches at col. 5, lines 3-17 that the final liquid product contains 42.75 vol. % ethanol. Jarvis takes 20% of the final liquid product and dilutes it with 80% gasoline to obtain a high octane gasoline composition possessing a vapor pressure in the range of 4 to 19 psi. The mixture of final liquid product and gasoline contains an amount of alcohol that is within the claimed range. With respect to Appellant's argument that Jarvis teaches a

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reaction product and not a blend of gasoline and oxygenate, Jarvis does disclose the use of a catalyst, catalyzing chamber and characterizes his product as being derived from a catalyzed mixture. However, it is clear from the teachings of Jarvis that the final product is a mixture of alcohol and hydrocarbon. The examiner agrees that Jarvis sets forth a chemical reaction; however, as shown in the Table at col. 5, the final product contains hydrocarbons (gasoline) and ethanol. Jarvis's objective is set forth in the abstract of the patent wherein he states that his objective is to produce high octane hydrocarbons from a mixture of substantially ethanol and butane or natural gasoline. At column 5, Jarvis teaches that the separated final liquid product contains 42.75% ethanol. He takes this liquid product and mixes it with gasoline. Clearly, Jarvis teaches an oxygenate and gasoline blend.

With respect to Appellant's argument that there is a disparity in the reported physical properties of Jarvis's product and the theoretical properties of the products, the examiner notes that Jarvis teaches the same fuel composition as set forth in the claims. Jarvis also teaches proportions and physical properties that anticipate those of the claims. Appellant's theoretical calculations are conclusory because Appellant has not taken the actual composition of Jarvis and subjected it to the procedure that determines the vapor pressure of a composition. Appellant has merely taken the vapor pressures of the individual components and added them together to reach his theoretical vapor pressure. The vapor pressure of a composition is not the cumulative value of the individual components.



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Appellant argues that claims 5-6 and 14 are not anticipated by Jarvis because the examiner has not argued that the rejection of the claims is based on inherency.

The examiner respectfully disagrees. In the Final Office action, page 5, the examiner states "Jarvis teaches the same composition as that set forth in the present invention. Therefore, Jarvis would inherently meet the limitations regarding reducing toxic air pollutants emissions."

Appellant argues that claims 11 and 12 are allowable because the examiner withdrew the reference that was applied against the claims.

The claims are objected to as being dependents of a rejected base claim.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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